The present invention describes cation channel polypeptides (1), termed molecule (11), which: (a) encodes (1); or (b) hybridises under high crimpeloy conditions with the mucleic acid molecule of (a); (2) a vector comprising (11); (3) a host cell transformed with the vector; (4) a crimpency conditions with the mucleic acid molecule of (a); (2) a vector comprising (11); (5) a ligand which binds tetrameric cation channel; (6) a compound that either increases or tetrameric cation channel; (6) a compound that either increases or cation channel; (7) a method of diagnosing a disease in a patient; (8) a patient; (12) a method of diagnosing a disease in a patient; (6) a method of monitoring the therapeutic treating a disease in a patient; (7) a method of monitoring the therapeutic treating a disease in a patient; (11) a method of monitoring the therapeutic treating a disease in a patient; (11) a method of monitoring the therapeutic treating a disease in a patient; (11) a method of monitoring the therapeutic treating a disease in a patient; (11) a method of monitoring the therapeutic treating a disease in a patient; (11) a method of monitoring the therapeutic treating disease in a patient; (11) a method of monitoring the therapeutic treating disease in a patient; (11) a mathod of monitoring the therapeutic treating disease in a patient; (11) a mathod of monitoring the therapeutic treation of disease in a patient; (11) and a reagent useful for the idencification of a binding reaction between the crompound effective to treat a disease or disorder to express higher, lowed or absent levels of (1); and (15) a method for screening for a compound effective to treat a disease or disorder, immunosuppressive, creening for a compound effective to treat a disease or disorder, in the apends, or compositions of the present invention may be used a contraceptive agents, preferably a non-hormonal contraceptive agents, preferably a non-hormonal contraceptive agent, preferably a non-hormonal contraceptive agent, preferably a non-hormonal c New INPIONCHOS and INPIONCHO6 polypeptides, useful as a contraceptive agent, or for diagnosing and treating a disease or disorder, e.g. infertility, neurological disorder, cardiovascular disorder, autoimmune Pierron VN; Reynolds L, Ď, Allen Disclosure, Fig 11, 96pp; English. À Michalovich WPI; 2004-053233/05. disease or stroke. Lobley AB,

Sequence 588 AA;

Gaps 90; 67.3%; Score 1788; DB 8; Length 588; 61.7%; Pred. No. 1.4e-155; Indels ; Pred. No. 1.4e-155; 67; Mismatches 73; Best Local Similarity 61.7 Matches 370; Conservative Query Match

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124 VRFSIKDRRMGHITHSRRLLSRLRVRCSRMPDLSLWAGWVLDSSVFSKFIISLIFLNTFV 122 VRPSIKPQRIEQISHAQRLLSRLHVRCSQRPPLSLWAGWVLECPLPKNFIIFLVFLNTII 9

125 IMVEIRILESTNIKUMPLKLILEVAAMFILLIFILEILIKMISNFSVFWKSAMNVFDFVV

183

242

184

304 LMLLLIFFY I FAVTGVYVFSEYTRS PRODLEYHVFFSDLPNSLVTVFILFTLDHWYALLO 245 243

443 588 DDDDDDXSDATESDGERSDSENSESENJESEKIDPEKDYAKKSYPEKSHPEKSYPEKSHP 471 DVWKVPEVSRIFSSIYFILMLLLGSIIFRSIIVAMMVTNPQNIRKELNBEMARREVQLKA ----ESNYGATEEDLITSASKTEET-----LSKKREYQSSSC----------VSSTSSSYSS-SSESRFSESIGREDWE TLVHENI.PGIMEMDQDDR-VWPRDSI.FRYPBLI.BKI.QYNI.BBRKKI.QBFAVQAI.MNI.BDK DMFKROIIORRKNMSHEALTSSHSKIEDRGASQORESLDLSEVSEV--363 411 412 444 529 305 303 365 470 셤 셤 Š 셤 ઠ 셤 셤 ò δ

RESULT 12 AAB52176

Ź AAB52176 standard; protein; 243

AAB52176;

(first entry) 22-PBB-2001 Human secreted protein BLAST search protein SEQ ID NO: 132.

Cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral; antiallergic; hepatotropic; antidiabetic; antiinflammatory; antiulcer; vulnerary; anticonvulsant; antideferial; antifungal; antiparasitic; cardiant; gene therapy; cancer; immune disorder; cardiovascular disorder; neurological disease; infection; human; secreted protein.

Homo sapiens.

WO200061624-A1.

19-OCT-2000.

06-APR-2000; 2000WO-US008980

09-APR-1999; 99US-0128700P. 20-JAN-2000; 2000US-0176930P.

(HUMA-) HUMAN GENOME SCI INC.

Komatsoulis G;

Ruben SM,

Rosen CA,

WPI; 2000-656324/63.

New nucleic acid molecules encoding human secreted proteins, used preventing, treating or amellorating a disorder, e.g. Alzheimer's preventing, treating or ameliorat: Parkinson's diseases and cancers.

Disclosure; Page 469-470; 478pp; English.

The invention relates to the isolation of genes AAC96900-C96947 eacoding the human secreted proteins AAB52104-B52150. This sequence was used as a query sequence for BLASTX searches. The genes and proteins are useful for preventing, ameliorating or treating medical conditions, e.g. by protein or gene therapy. The genes are isolated from a range of human tissues disclosed in the specification. The nucleic acids, proteins, antibodies and (ant) agonists are useful in the diagnosis, treatment and prevention of: (a) cancer, e.g. breast and ovarian cancer, and other cancers of the adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver, llung, or urogenital; (b) immune disorders e.g. Addison's a disease, allonges, autoimmune hamenlytic anaemia, autoimmune thyroiditis, diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid arthritis and ulcerative colitis; (c) cardjovascular disorders such as

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                                                                                                                                                                                                              NFSVFWKSAWNVFDFVVTMLSLLPEVVVLVGVTGOSVWLQLLRICRVLRSLKJLLAOFROI 120
                                                                                                                                                                                                                                                        QIIILVLVRALKSMTFLLMLLLIFFYIFAVTGVYVFSEYTRSPRQDLEYHVFFSDLDNSL 180
                                                                                                                                                                                                                                                                                           VIVEILETLDHWYALLQDVWKVPEVSRIFSSIYFILMLLLGSIIFRSIIVAMMVINEQNI 347
                                                                                                                                                                                                                                                                                                          VIVFILETLDHWYALLQDVWKVPEVSRIFSSIYFILWILLGSIIFRSIIVAMMYTNFQNI 240
                                                                                                                                                                                     NPSVPWKSAWNVFDFVVTMLSLLPEVVVLVGVTGQSVWLQLLRICRVLRSLKLLAQFRQI 227
                                                                                                                                                                                                                                       QIIILVLVRALKSMTFLLMLLLIFFYIFAVTGVYVFSBYTRSPRQDLEYHVFFSDLPNSL 287
                                                                                                                                                            9
myocardial ischaemias; (d) wound healing; (e) neurological diseases e.g. cerebral anoxia and epilepsy; and (f) infectious diseases such as viral, bacterial, fungal and parasitic infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CatSper2; potential-dependent calcium ion channel; TCH207; sterility; sperm motility; deformity; testis disorder; amenorrhoea; menstrual disorder; cancer; non-small cell lung cancer; antiinfertility;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ential-dependent calcium ion channel protein TCH207 and gene encoding for treatment and diagnosis of cancer and sterility.
                                                                                                                                 PLFKNPIIPLVFLNTIILMVBIBLLBSTNTKLWPLKLTLEVAAWFILLIFILBILLKWLS
                                                                                                                                                1 PLFKONFIIFLVFLATIILMVBIBLLESTNTKLWPLKLTLBVAAMPILLIFILFILKWLS
                                                                                                        Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CatSper2 protein sequence homologous to human TCH207 protein.
                                                                              Length 243;
                                                                                                       Indels
                                                                             46.0%; Score 1221; DB 3; L
100.0%; Pred. No. 7.7e-104;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                       ADF74605 standard; protein; 236 AA.
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                                                                                                       Conservative
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243; Conserv
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                                                                                                                                                                                                                                                                                                                                                                        RKE 243
                                                    Sequence, 243 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unidentified
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cytostatic.
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This invention relates to a novel potential-dependent calcium ion channel identified as the TGH207 protein, as well as TGH207 salts and partial peptides derived thereof. Specifically, it refers to three variants of the human TGH207 and also related proteins having equivalent activity. Purthermore, it describes a screening method to identify compounds that

Disclosure; Pig 1; 121pp; Japanese.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral; antiallergic; hepatotropic; antidiabetic; antiinflammatory; antiulcer; vulnerary; anticonvulsant; antidecterial; antifungal; antiparasitic; cardiant; gene therapy; cancer; immune disorder; cardiovascular disorder; neurological disease; infection; human; secreted protein.
                                                                                                                                                                                                                                                                                                                                94
          presents compositions that can be useful for the prevention presents compositions that can be useful for the prevention, treatment and diagnosis of sterility caused by lack of sperm or sperm motility, sperm deformity or death, as well as testis disorders, amenorrhoea and menstrual disorders. Additionally, drugs containing the THR207 protein can be used for treating various cancers, for example cancer of the testis, ovary, breast or stomach, also non-small cell lung cancer. Accordingly, these compositions have antiinfertility and cytostatic activities. This polypeptide sequence is the CatSper2 protein that shar homology with the human TCH207 protein of the invention.
 modulate the activity or expression of the calcium ion channel proteins
                                                                                                                                                                                                                                                                                                                                                                                        VIGGSVWLQLLRICRVLRSLKILLAQPRQIQIIILVLVRALKSWTFLLMLLLIFFYIFAVT
                                                                                                                                                                                                                                                                                                 LWPLKLTLEVAAWFILLIFILBILLKWLSNFSVFWKSAMNVFDFVVTMLSLLPEVVVLVG
                                                                                                                                                                                                                                                                                                                    35 LWPLKLTLEVAAWFILLIFILEILEKKESNFSVFWKSAWNVFDFVVTWLSLLPEVVVLVG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            new nucleic acid molecules encoding human secreted proteins, used in
preventing, treating or ameliorating a disorder, e.g. Alzheimer's and
Parkinson's diseases and cancers.
                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                              Length 236;
                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                38.4%; Score 1020; DB 7;
ilarity 100.0%; Pred. No. 2.6e-85;
Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human secreted protein encoded by cDNA #43.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB52145 standard; protein; 174
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
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                                                                                                                                                                                                                                              Local Similarity
les 202; Conserv
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                                                                                                                                                                                               Sequence 236 AA;
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